WITHDRAWN

Commercial Standard CS116-54

SUPERSEDES CS116-44

HOMOGENEOUS-WALL,

Bituminized-Fibre Drain and Sewer Pipe

A RECORDED VOLUNTARY STANDARD OF THE TRADE

COMMODITY STANDARDS

Simplified Practice Recommendations and Commercial Standards are developed by manufacturers, distributors, and users in cooperation with the Commodity Standards Division of the Office of Technical Services and with the National Bureau of Standards.

The purpose of Simplified Practice Recommendations is to eliminate avoidable waste through the establishment of standards of practice for stock sizes and varieties of specific commodities that currently are in general production and demand. The purpose of Commercial Standards is to establish standard methods of test, rating, certification, and labeling of commodities, and to provide uniform bases for fair competition.

The adoption and use of a Simplified Practice Recommendation or a Commercial Standard is voluntary. However, when reference to a Commercial Standard is made in contracts, labels, invoices, or advertising literature, the provisions of the standard are enforcible through usual legal channels as a part of the sales contract.

A Simplified Practice Recommendation or a Commercial Standard originates with the proponent industry. The sponsors may be manufacturers, distributors, or users of the specific product. One of these three elements of industry submits to the Commodity Standards Division the necessary data to be used as the basis for developing a standard of practice. The Division, by means of assembled conferences or letter referenda, or both, assists the sponsor group in arriving at a tentative standard of practice and thereafter refers it to the other elements of the same industry for approval or for constructive criticism that will be helpful in making any necessary adjustments. The regular procedure of the Division assures continuous servicing of each effective Simplified Practice Recommendation and Commercial Standard, through review and revision, whenever, in the opinion of the industry, changing conditions warrant such action.

UNITED STATES DEPARTMENT OF COMMERCE

Sinclair Weeks, Secretary

317082—54 ——1

Bituminized-Fibre Drain and Sewer Pipe

(Second Edition)

[Effective Date, September 10, 1954]

1. PURPOSE

1.1. The purpose of this Commercial Standard is to provide a nationally recognized specification for the guidance of producers, distributors, and users; to promote fair competition; and to provide a basis for guarantee of quality.

2. SCOPE

2.1. This standard covers uses, general requirements, dimensions, physical and chemical properties, and methods of testing of bituminized-fibre drain and sewer pipe (including 45- and 90-degree bends, straight couplings, and 5-degree angle couplings), in diameters ranging from 2 to 8 inches and in lengths of 5 to 10 feet. It also establishes a uniform method of guaranteeing compliance with the standard. Should fittings not covered by this standard be required, they may be offered as conforming to this standard when an equivalent test section of the material used in the fittings will meet the specification requirements for bituminized-fibre sewer pipe in paragraphs 5.5, 5.6, 5.7, 5.8, 5.9, 5.10, and 6.3 of this standard.

3. USES

3.1. The requirements of this standard are intended to provide pipe suitable for conducting liquids and for drainage where tight joints are necessary, and where resistance to corrosion, erosion, and disintegration is required, such as the following:

a. House connections to sewers and septic tanks.
b. Farm drainage and low-head irrigation conductor pipe.
c. Downspouts, leaders, and storm drains.
d. Salt water disposal in oil well country.
e. Industrial waste drainage, and other uses outside of buildings, as indicated by pipe characteristics.

4. GENERAL REQUIREMENTS

4.1. *Material.*—Pipe and couplings shall be composed of a bituminous compound reinforced with an interwoven fibrous structure. The fibrous material shall be thoroughly impregnated. The wall of the pipe shall be dense and homogeneous, without seams or laminations, and with a smooth interior surface free from obstructions and rough or flaky areas. Bends and fittings shall be of the same material as the pipe, or of a material having equal or better physical and chemical properties.

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4.2. *Method of joining.*

4.2.1. Pipe and bends shall be provided with accurately machined or molded taper joints, and a taper-sleeve coupling shall be provided for each length of pipe and for each bend. All joints for a given size shall be interchangeable, and shall be watertight, when properly assembled, as determined by test procedure, paragraph 6.3. Dimensions of the joint are given in table 1 and figure 1. (A hand-operated tooling lathe can be obtained for cutting joints on the job when necessary.)

4.2.2. *Taper.*—The slope of the taper in both pipe and couplings shall be 2 degrees (4 degrees included angle).

4.3. *Bore.*—The bore of the pipe and couplings shall be circular in cross section when tested in accordance with paragraph 6.4.

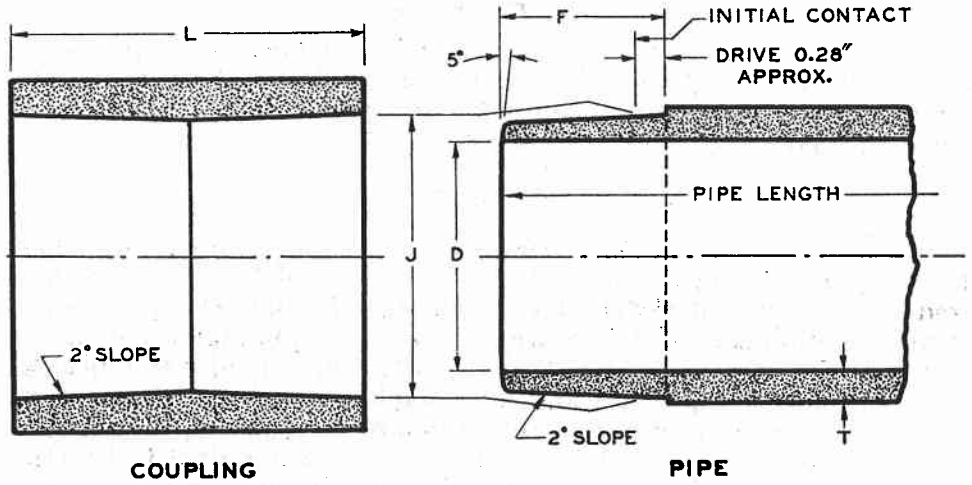

FIGURE 1. *Taper joint, pipe, and coupling.*

TABLE 1. *Dimensions of pipe and couplings (see figure 1)*

Nominal size (in.)	2	3	4	5	6	8
Minimum inside diameter (in.), D	2.00	3.00	4.00	5.00	6.00	8.00
Minimum wall thickness (in.), T	.23	.28	.32	.41	.46	.57
Minimum length of coupling (in.), L	2.90	3.42	3.92	3.92	3.92	5.00
Diameter inside large end of coupling and at point of initial contact on pipe taper (in.), J [1]	2.470	3.448	4.493	5.726	6.782	9.110
Length of pipe joint (in.), F [2]	1.43	1.69	1.94	1.94	1.94	2.48

[1] Joint dimension and taper are checked by gaging at time and place of manufacture.
[2] Pipe lengths are given in pars. 5.1.1 and 5.1.2.

5. DETAIL REQUIREMENTS

5.1. *Dimensions of pipe and couplings* shall be as specified in figure 1 and table 1.

5.1.1. Standard lengths shall be 5, 8, or 10 feet, depending on the manufacturer's standard practice. Length measurements shall include the tapered ends of the pipe, and a tolerance of plus or minus 1 inch shall be allowed.

5.1.2. In any one shipment, up to 20 percent of the specified footage may be supplied in lengths shorter than the manufacturer's standard. Not more than two different short lengths shall be allowed in any one shipment, and these short lengths shall differ from standard lengths only in multiples of ½ foot. No lengths shorter than 4 feet shall be furnished.

5.2. A coupling shall be furnished for each length of pipe.

5.3. *Dimensions of bends.*—Wall thicknesses of bends shall be not less than those of the corresponding pipe. A round ball, ¼ inch smaller in diameter than the nominal size, shall pass through the bore of the bend freely. Dimensions of 45- and 90-degree bends of several standard sizes furnished are shown in figure 2 and table 2.

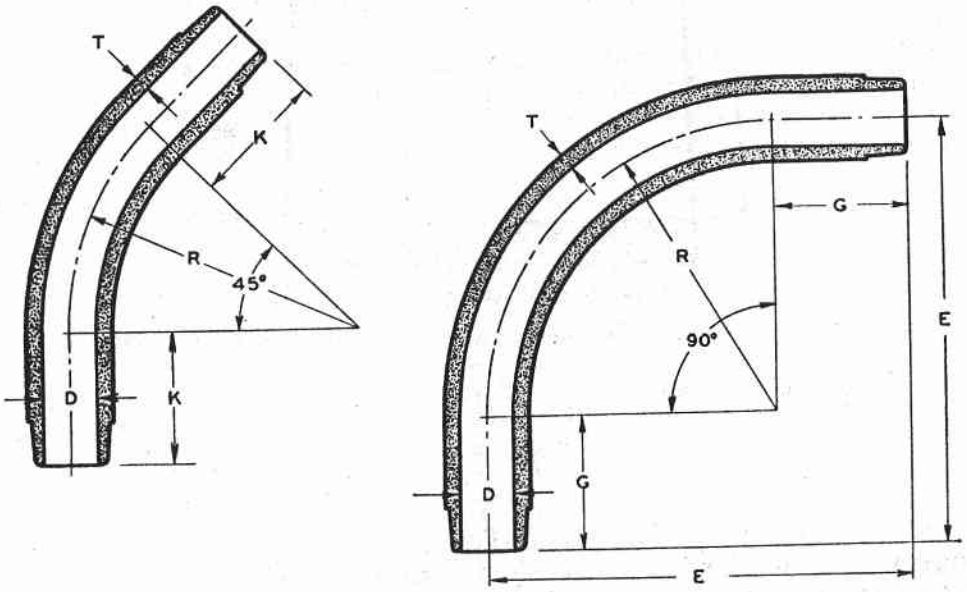

FIGURE 2. *Bends.*

TABLE 2. *Dimensions of bends (inches)* [1] *(see figure 2)*

Size (in.)	2				3			4		5		6	8	
D	2.00				3.00			4.00		5.00		6.00	8.00	
T (min.)	0.23				0.28			0.32		0.41		0.46	0.57	
R	9.5	18	24	36	13	24	36	16	36	24	36	36	[2]	48
E	17.5	26	32	38	21	32	38	24	38	32	36	36	[2]	[2]
G	8	8	8	2	8	8	2	8	2	8	0	0	8	
K	8	8	8	8	8	8	8	8	8	8	8	8		8

[1] Details of joint are given in table 1 and figure 1.
[2] 8-in. bends are supplied regularly in 45-degree angles only.

5.4. *Dimensions of 5-degree angle couplings.*—These dimensions are shown in figure 3 and table 3.

5.5. *Chemical resistance.*—Bituminized-fibre pipe and fittings shall be resistant to corrosive soils and to the acids, alkalies, salts, and petroleum wastes which may occur in raw sewage when the pipe and fittings are tested in accordance with paragraphs 6.5.1 and 6.5.2.

5.6. *Water absorption.*—Pipe and bends shall not exceed a gain in weight of 2 percent when tested in accordance with paragraph 6.6.

5.7. *Resistance to boiling water.*—Pipe and bends shall show resistance to boiling water as determined by test procedure, paragraph 6.7.

5.8. *Heat resistance.*—Pipe and bends shall show resistance to heat as determined by test procedure, paragraph 6.8.

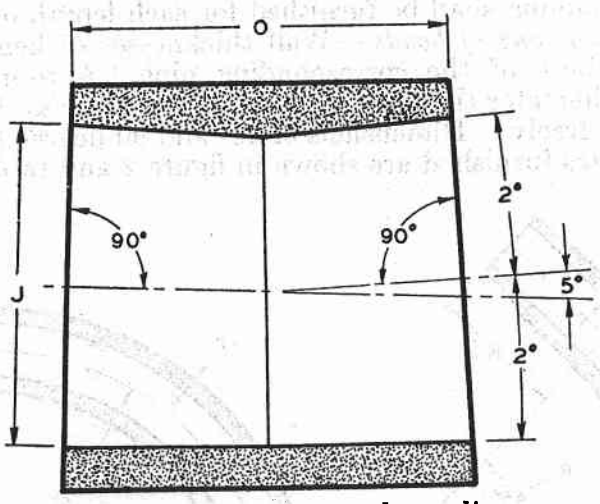

FIGURE 3. *Five-degree angle coupling.*

TABLE 3. *Dimensions of 5-degree angle couplings (inches) (see figure 3)*

Nominal size (in.)	2	3	4	5	6	8
O (min.)	2.98	3.5	4.00	4.00	4.00	5.00
J	2.470	3.448	4.493	5.726	6.782	9.110

5.9. *Resistance to flattening.*—The pipe shall have resistance to flattening when loaded and subjected to heat. Decrease in diameter at point of application of load shall not exceed 3 percent when determined in accordance with paragraph 6.9.

5.10. *Dry and wet crushing strength.*—The pipe shall have crushing strength not less than that specified in table 4 when tested in accordance with paragraphs 6.10 and 6.11.

TABLE 4. *Crushing strength (ultimate)*

Nominal size (in.)	2	3	4	5	6	8
Crushing strength (lb. per ft.)	1,100	1,100	1,100	1,300	1,300	1,600

5.11. *Beam strength.*—The pipe shall have beam strength not less than that specified in table 5, when tested in accordance with paragraph 6.12.

TABLE 5. *Beam strength (ultimate)*

Nominal size (in.)	2	3	4	5	6	8
Span (ft.)	1	2	2	2	3	4
Beam strength (lb.)	1,000	1,000	2,200	4,200	4,400	7,000

5.12. *Crushing strength of couplings.*—The crushing strengths of couplings shall be not less that those given in table 6.

TABLE 6. *Crushing strengths of couplings*

Nominal size (in.)	2	3	4	5	6	8
Crushing strength (lb. minimum)	270	315	370	430	430	670

6. SAMPLING AND TEST PROCEDURES

6.1. *Method of sampling.*—Samples to be tested shall be selected at random from manufacturer's stock or from shipment. Undamaged samples only are to be used. Couplings are tested for crushing strength only (see pars. 5.12 and 6.13). Samples of pipes and bends with couplings shall be selected for test in accordance with the following procedure, and compliance of these samples shall be accepted as evidence of compliance of the entire lot. Three samples shall be selected. If all three samples meet requirements, the lot shall be accepted. If two samples fail to meet requirements, the lot shall be rejected. If one sample fails to meet requirements, six additional samples shall be selected. If one or more of the six additional samples fail to meet requirements, the lot shall be rejected.

6.2. *Material requirements* (see par. 4.1).—These requirements shall be determined by visual inspection of specimens cut from pipe.

6.3. *Joint tightness.*—One 10-foot assembly of pipe and one short length (approx. 6 to 12 in.) shall be joined with a taper-sleeve coupling until the pipe joints shoulder on the coupling. The whole assembly shall be tested in vertical position with the bottom end sealed by any suitable method, and with the 10-foot assembly uppermost. The pipe shall be filled with water to the top, and be loosely covered to prevent evaporation, thus maintaining the lower joint under a 10-foot head of water. Over a period of 24 hours there shall be no appreciable drop in the water level and no evidence of leakage at the joint.

6.4. *Bore and length dimensions.*—Samples of pipe shall be calipered for diameter and wall thickness and measured for length to determine compliance with dimensional requirements.

6.5. *Chemical resistance.*

6.5.1. Six-inch lengths of pipe shall be immersed in solutions, of 0.1 normality, of sulfuric acid, sodium carbonate, and sodium sulfate. After 30 days the specimens shall show no evidence of softening or disintegration.[1]

6.5.2. *Kerosene test.*—A 12-inch length of pipe (6-in. length optional) shall be cleanly sawed from the pipe and immersed in at least 1 gallon of clean kerosene at approximately 75° F. for 10 days. The sample shall be removed, wiped off, and tested to meet the dry crushing strength requirements of paragraph 5.10.

6.6. *Water absorption.*—Twelve-inch lengths of pipe (6-in. lengths optional) shall be cleanly sawed from the pipe, wiped clean and dry, and accurately weighed, then immersed in water at approximately 75° F. for 48 hours. The specimens shall then be removed, wiped clean and dry, and immediately reweighed. Gain in weight shall be expressed as a percentage of the original weight. (These same specimens may then be tested for wet crushing strength, par. 6.11.)

6.7. *Resistance to boiling water.*—Twelve-inch lengths of pipe (6-in. lengths optional) shall be cleanly sawed from pipe, and then immersed in boiling water for 6 hours. Upon removal, they shall show no evidence of disintegration or separation into laminations. The same samples shall then be placed in cold water at 70° F. for 3 hours (or

[1] Purchasers who desire to use a 48-hour test may, at their option, test the pipe by the method for chemical resistance given in ASTM Designation C13-50T, and Federal Specification SS-P-371a for Clay Sewer Pipe, although that method, designed for testing an inorganic material, is not considered wholly dependable as a test for chemical resistance of bituminized-fibre pipe. Drying the specimen to constant weight should be conducted at a temperature not above 215° F. to avoid conditions that may cause erratic results. In testing pipe for conformance with this standard, and for referee purposes, the method described in par. 6.5 shall be used in all cases.

they may be conditioned overnight in air at 70° F.), and the crushing test described in paragraph 6.10 made upon them. They shall retain at least 90 percent of the dry crushing strength specified in table 4.

6.8. *Heat resistance.*—Any convenient length of pipe shall be laid horizontally on a flat surface in an oven maintained at 180°, ±2° F., for 8 hours. There shall be no appreciable exudation of pitch or flattening of the pipe.

6.9. *Resistance to flattening.*—Two 3-inch lengths shall be accurately and cleanly sawed from the pipe and accurately measured for inside diameter, and the points at which measurements are taken shall be marked for identification. These two pieces shall be placed in an oven on a common flat base with their axes parallel, and with the measured diameter in a vertical direction. (See fig. 4.) They shall be bridged

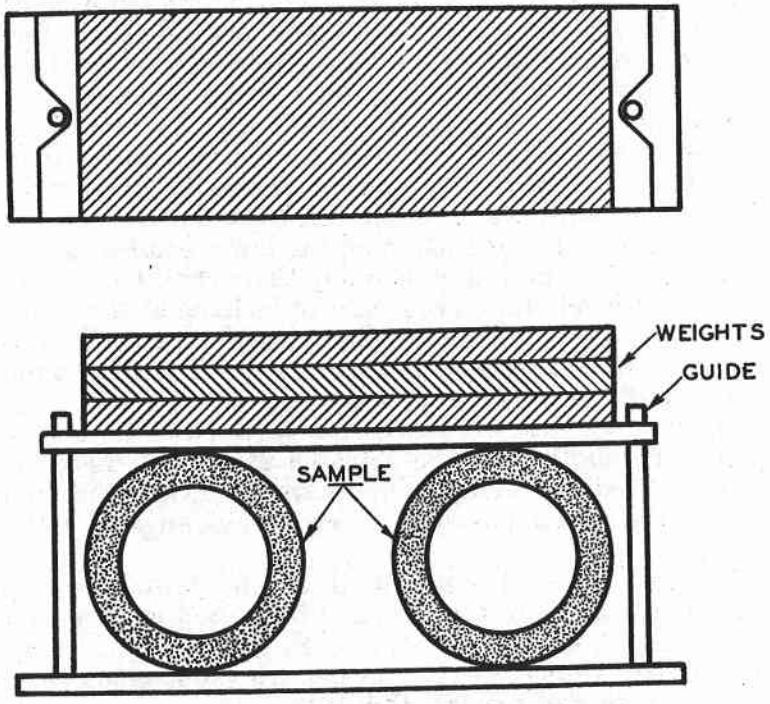

FIGURE 4. *Flattening test.*

symmetrically with a flat plate, and the plate shall be symmetrically loaded to produce a total load, or load per piece, according to table 7.

The oven shall be maintained at 150°, ±2° F., for 48 hours. At the end of 48 hours, the two pieces shall be unloaded and removed from the oven, and allowed to cool for at least 1 hour at 75° F. in air, after which the inside diameters shall again be measured. Change in diameter shall be expressed as a percentage of the original diameter.

TABLE 7. *Flattening loads*

Nominal size (in.)	2	3	4	5	6	8
Total load (lb.)	55	55	55	65	65	80
Load per piece (lb.)	27.5	27.5	27.5	32.5	32.5	40
Load (lb. per ft.)	110	110	110	130	130	160

6.10. *Dry crushing strength.*—A 12-inch length (6-in. optional) cleanly sawed from the pipe shall be kept in air at not over 75° F. for 24 hours. The specimen shall be laid horizontally between two flat plates in a testing machine having a head speed of 0.5 inch per minute. The load at rupture shall be reported in pounds per linear foot.

6.11. *Wet crushing strength.*—Specimens like those used for test in paragraph 6.10 shall be kept in water at not over 75° F. for 48 hours. (Specimens used for water absorption (par. 6.6) may be used for this test.) Within ½ hour after removal from the water, they shall be tested in accordance with paragraph 6.10.

6.12. *Beam strength.*—Specimens for this test shall be cleanly sawed from pipe to the lengths given in table 8. These specimens shall be maintained at a temperature of not over 75° F. for 24 hours before the test is run. The testing fixture shall consist of V-blocks and a flexible strap for applying load as shown in figure 5, and the test shall be made by a machine having a head speed of 0.5 inch per minute. Span and breaking loads in pounds shall be reported.

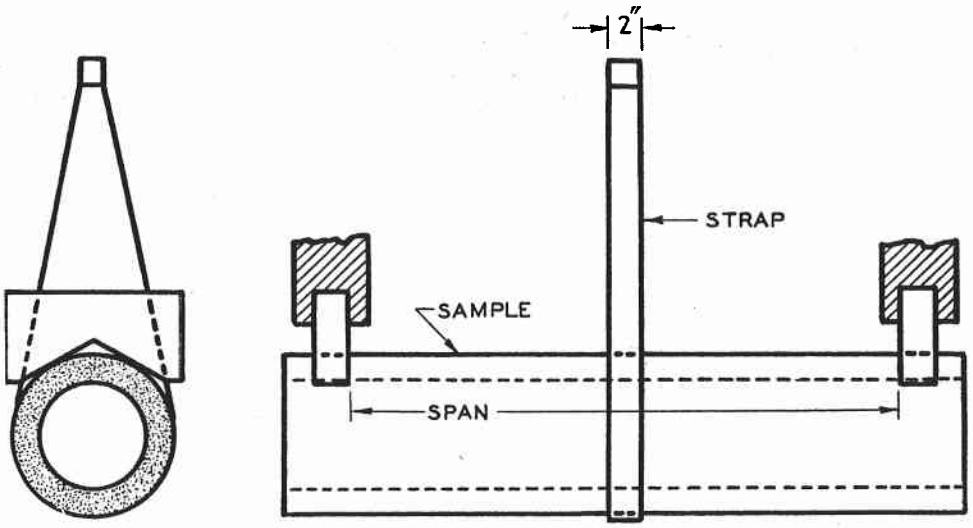

FIGURE 5. *Beam test.*

TABLE 8. *Beam strength test specimens*

Nominal size (in.)	2	3	4	5	6	8
Lengths (in.)	20	30	30	30	42	56

6.13. *Crushing strength of couplings.*—The entire coupling shall be tested after being conditioned in air at not over 75° F. for 24 hours. Tests for dry strength only are made. Testing machine and operation shall be as described in paragraph 6.10. The load at rupture of the coupling shall be reported.

7. MARKING OF PRODUCT

7.1. It is recommended that each length of pipe be marked with the name of the manufacturer or his brand name, and that the number of this Commercial Standard, CS116–54, be stamped under the brand, which shall constitute a guaranty of conformance with this standard.

8. IDENTIFICATION

8.1. In order that purchasers may be assured that bituminized-fibre drain and sewer pipe purchased actually complies with all requirements of this Commercial Standard, it is recommended that manufacturers include the following statement in conjunction with their name and address on labels, invoices, sales literature, etc.:

> This bituminized-fibre drain and sewer pipe complies with Commercial Standard CS116–54, as developed by the trade under the procedure of the Commodity Standards Division, and issued by the U. S. Department of Commerce.

8.2. When available space on labels is insufficient for the full statement in legible type, an abbreviated statement, as follows, is recommended:

> Complies with CS116–54, as developed by the trade, and issued by the U. S. Department of Commerce.

9. EFFECTIVE DATE

9.1. Having been passed through the regular procedure of the Commodity Standards Division, and approved by the acceptors hereinafter listed, this Commercial Standard was issued by the United States Department of Commerce, effective from September 10, 1954.

EDWIN W. ELY,
Chief, Commodity Standards Division.

HISTORY OF PROJECT

First edition.—On November 30, 1943, a recommended Commercial Standard for bituminized-fibre drain and sewer pipe, submitted by a leading manufacturer and subsequently adjusted in accordance with the viewpoint of other manufacturers and representative distributors and users, was presented to the industry for written acceptance. On February 10, 1944, the United States Department of Commerce announced that acceptances estimated to represent a satisfactory majority had been received, and that the Commercial Standard, to be designated CS116–44, Bituminized-Fibre Drain and Sewer Pipe, would become effective March 10, 1944.

Second edition.—On July 1, 1954, a recommended revision of CS116–44, approved by the standing committee of the industry, was circulated to the trade for written acceptance. Acceptances estimated to represent a satisfactory majority having been received, an announcement was issued by the Department of Commerce on August 10, 1954, that the revision, to be designated CS116–54, would become effective September 10, 1954.

Project Manager: F. W. Reynolds, Commodity Standards Division, Office of Technical Services.

Technical Adviser: Robert S. Wyly, Building Technology Division, National Bureau of Standards.

STANDING COMMITTEE

The following individuals comprise the membership of the standing committee, which is to review, prior to circulation for acceptance, revisions proposed to keep the standard abreast of progress. Comment concerning the standard and suggestions for revision may be addressed to any member of the committee or to the Commodity Standards Division, Office of Technical Services, U. S. Department of Commerce, which acts as secretary for the committee.

B. G. LeMieux (chairman), Orangeburg Manufacturing Co., Inc., Orangeburg, N. Y.
E. W. Lovering, Brown Co., Berlin, N. H.
C. W. Petersen, Line Material Co., South Milwaukee, Wis.
H. N. Eaton, 3703 Inverness Drive, North Chevy Chase, Md.
John K. Dorsey, John T. Dorsey & Son, 321 West Huron St., Chicago, Ill.
John M. Rhoades, 441 South Pineapple Ave., Sarasota, Fla.
Robert A. Wood, Western Plumbing Officials Association, P. O. Box 11, Los Angeles 53, Calif.
H. L. Schaller, P. O. Box 617, Coconut Grove Station, Miami 3, Fla.

ACCEPTORS

The organizations listed below have individually accepted this standard for use as far as practicable in the production, distribution, testing, purchase, or use of bituminized-fibre drain and sewer pipe. In accepting this standard they reserved the right to depart from it as they individually deem advisable. It is expected that articles which actually comply with the requirements of this standard in all respects will be regularly identified or labeled as conforming thereto, and that purchasers will require such specific evidence of conformity.

ASSOCIATIONS

(General Support)

American Specification Institute, Chicago, Ill.
Western Plumbing Officials Association, Los Angeles, Calif.

FIRMS AND OTHER INTERESTS

Adams, Franklin O., Architect, Tampa, Fla.
Barrett Supply Co., Augusta, Ga. (General support.)
Blake-Rounds Supply Co., Portland, Maine.
Blodgett Supply Co., Inc., Burlington, Vt.
Brown Co., Bermico Division, Berlin, N. H.
Brust & Brust, Architects, Milwaukee, Wis.
Buck & Buck, Hartford, Conn.
Camlet, J. Thos., Architect & Engineer, Passaic, N. J.
Careva Co., Inc., York, Pa.
Cedar Rapids Pump & Supply Co., Cedar Rapids, Iowa.
Central of Georgia Railway Co., Savannah, Ga.
Connor Co., Peoria, Ill.
Crane Co., Chicago, Ill.
Dorsey, John T., & Son, Chicago, Ill.
Dutton, A. C., Lumber Corp., Poughkeepsie, N. Y.
Eaton, Herbert N., North Chevy Chase, Md.
Elizabeth Plumbing & Heating Supply Co., Elizabeth, N. J.
Endicott Supply Co., Vineland, N. J.
Fall River Steam & Gas Pipe Co., Corp., Fall River, Mass.
Flannagan & Sons, Architects & Engineers, Henderson, N. C.
Frontier Water & Steam Supply Co., Buffalo, N. Y.
Hospital Center at Orange, Orange, N. J.
Lansing Supply Co., Lansing, Mich.
Levy, Will, Architect, St. Louis, Mo.
Line Material Co., Division of McGraw Electric Co., South Milwaukee, Wis.
Malone Plumbing Supply Co., Pittsburgh, Pa.
Manufacturers Corporation of Ohio, Mansfield, Ohio
McKee Plumbing Supply Co., Cleveland, Ohio
Miami, City of, Plumbing Division, Miami, Fla.
Miller & Vrydagh, Terre Haute, Ind.
Mooser, Wm., Architect, San Francisco, Calif.
Muhlenberg Bros., R. A., Wyomissing, Pa.
Newark Milk & Cream Co., and Alderney Dairy Co., Newark, N. J.
Orangeburg Manufacturing Co., Inc., Orangeburg, N. Y.
Orangeburg Manufacturing Co., Inc., Newark, Calif.
Patzig Testing Laboratories, Des Moines, Iowa
Pennsylvania Water & Power Co., Baltimore, Md.
Piers, Eber F. and John L., Architects and Engineers, Odgen, Utah
Pittsburgh, City of, Housing Authority, Pittsburgh, Pa.
Pittsburgh Testing Laboratory, Pittsburgh, Pa.
Puget Sound Power & Light Co., Seattle, Wash.
Rayl Co., Detroit, Mich.
Rhoades, J. M., Co., Sarasota, Fla.
Richland Company of Ohio, Mansfield, Ohio
Ritchie, James H., & Associates, Boston, Mass.
Robbins-Gamwell Corp., Pittsfield, Mass.
Roberts, J. T., & Bro., Inc., Baltimore, Md.
Robischung-Kiesling Contracting Corp., Houston, Tex.
Ruffing, Frank J., Plumbing, Pittsburgh, Pa.
Seashore Supply Co., Atlantic City, N. J.
Shivers, W. M., Plumbing Supply Co., Houston, Tex.
Specification Record, Chicago, Ill.
Thorne, Henry C., Architect, Ithaca, N. Y.
Tomkins Bros., Jamaica, N. Y.
Tomkins Bros., Newark, N. J.
Tomkins Bros., Philadelphia, Pa.
Vonnegut, Wright & Porteous, Inc., Indianapolis, Ind.
Woolcock Plumbing & Heating Co., Niagara Falls, N. Y.

U. S. GOVERNMENT

Army, Department of, Procurement Division, Standards Branch, Washington, D. C.
Interior, Department of, Bureau of Indian Affairs, Branch of Buildings and Utilities, Albuquerque, N. Mex.

CS116–54

ACCEPTANCE OF COMMERCIAL STANDARD

If acceptance has not previously been filed, this sheet properly filled in, signed, and returned will provide for the recording of your organization as an acceptor of this Commercial Standard.

Date_____

Commodity Standards Division,
Office of Technical Services,
U. S. Department of Commerce,
Washington 25, D. C.

Gentlemen:

We believe that this Commercial Standard constitutes a useful standard of practice, and we individually plan to utilize it as far as practicable in the

production [1] distribution [1] purchase [1] testing [1]

of bituminized-fibre drain and sewer pipe.

We reserve the right to depart from the standard as we deem advisable.

(Cut on this line)

We understand, of course, that only those articles which actually comply with the standard in all respects can be identified or labeled as conforming thereto.

Signature of authorized officer_____
(In ink)

(Kindly typewrite or print the following lines)

Name and title of above officer_____

Organization_____
(Fill in exactly as it should be listed)

Street address_____

City, zone, and State_____

[1] Underscore which one. Please see that separate acceptances are filed for all subsidiary companies and affiliates which should be listed separately as acceptors. In the case of related interests, trade associations, trade papers, etc., desiring to record their general support, the words "General support" should be added after the signature.

TO THE ACCEPTOR

The following statements answer the usual questions arising in connection with the acceptance and its significance:

1. *Enforcement.*—Commercial Standards are commodity specifications voluntarily established by mutual consent of those concerned. They present a common basis of understanding between the producer, distributor, and consumer and should not be confused with any plan of governmental regulation or control. The United States Department of Commerce has no regulatory power in the enforcement of their provisions, but since they represent the will of the interested groups as a whole, their provisions through usage soon become established as trade customs, and are made effective through incorporation into sales contracts by means of labels, invoices, and the like.

2. *The acceptor's responsibility.*—The purpose of Commercial Standards is to establish, for specific commodities, nationally recognized grades or consumer criteria, and the benefits therefrom will be measurable in direct proportion to their general recognition and actual use. Instances will occur when it may be necessary to deviate from the standard and the signing of an acceptance does not preclude such departures; however, such signature indicates an intention to follow the standard, where practicable, in the production, distribution, or consumption of the article in question.

3. *The Department's responsibility.*—The major function performed by the Department of Commerce in the voluntary establishment of Commercial Standards on a nationwide basis is fourfold: first, to act as an unbiased coordinator to bring all interested parties together for the mutually satisfactory adjustment of trade standards; second, to supply such assistance and advice as past experience with similar programs may suggest; third, to canvass and record the extent of acceptance and adherence to the standard on the part of producers, distributors, and users; and fourth, after acceptance, to publish and promulgate the standard for the information and guidance of buyers and sellers of the commodity.

4. *Announcement and promulgation.*—When the standard has been endorsed by a satisfactory majority of production or consumption in the absence of active, valid opposition, the success of the project is announced. If, however, in the opinion of the standing committee or of the Department of Commerce, the support of any standard is inadequate, the right is reserved to withhold promulgation and publication.

U. S. GOVERNMENT PRINTING OFFICE: 1954

CS116-54

FEDERAL REGISTER

DEPARTMENT OF COMMERCE

National Bureau of Standards

VOLUNTARY PRODUCT STANDARDS

Notice of Action on Proposed Withdrawal

In accordance with the provisions of § 10.12 of the Department's published "Procedures for the Development of Voluntary Product Standards" (15 CFR Part 10, as amended; 35 F.R. 8349, dated May 28, 1970), notice is hereby given of the withdrawal of nine standards identified below. Each of these standards, Commercial Standard (CS) and Simplified Practice Recommendation (R), has been found to be obsolete, no longer technically adequate, no longer acceptable to and used by the industry, or otherwise not in the public interest.

CS 116-54	Homogenous-wall, bituminized-fiber drain, and sewer pipe.	D1861-69
CS 226-59	Laminated-wall, bituminized-fiber drain, and sewer pipe.	D1862-64
CS 270-65	Acrylonitrile-butadiene - styrene (ABS), plastic drain, waste, vent pipe, and fittings.	D2661-68
CS 272-65	Polyvinyl chloride (PVC), plastic drain, waste, vent pipe, and fittings.	D2665-68
CS 226-61	Styrene rubber plastic drain, sewer pipe, and fittings.	D2852-69T
CS 188-66	Cast-iron soil pipe and fittings.	A74-69
CS 148-60	Perforated vitrified clay pipe (standard and extra strength)	
CS 224-60	Vitrified clay sewer pipe (standard and extra strength).	C13-69, C200-69, C211-69
R 211-45	Clay sewer pipe and fittings.	C12-64

Public notice of the Department's intention to withdraw these standards was published in the FEDERAL REGISTER on January 25, 1972, (37 F.R. 1130), and a 45-day period was provided for the submission of comments or objections concerning the proposed withdrawal of any of these standards. No objections to the Department's intention of withdrawing any of these standards have been received by the National Bureau of Standards.

The effective date for the withdrawal of these standards will be 60 days after the publication of this notice. This withdrawal action terminates the authority to refer to these standards as Voluntary Product Standards developed under the Department of Commerce Procedures.

LEWIS M. BRANSCOMB,
Director.

MARCH 16, 1972.

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The standards listed above are recommended replacements for those being withdrawn. They are available from the American Society for Testing and Materials, 1916 Race St., Philadelphia, Pa. 19103, by whom they are published.

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